

Book Review

ANNUAL REVIEW OF ENTOMOLOGY. Volume 11, 1966. Annual Reviews Incorporated, Palo Alto, California, in cooperation with the Entomological Society of America. viii + 596 pp. 3052 refs, 27 figs. \$8.50 U.S.A., \$9.00 elsewhere. With some comments on the first ten volumes.

This eleventh volume in the series is no less essential than any of its ten predecessors; in fact, perhaps the extra hundred or so pages over some of the earlier volumes make it more so. That it is essential, however, makes it particularly important that attention should be drawn to some of its shortcomings.

The title of a review article should, in a sense, be a review of its contents. Several titles here are not; the worst is the last review in the book, entitled "Pest Control", which covers little besides the control of industrial and domestic pests, an area last covered in Volume 1 of the Review. Jacobson's "Chemical insect attractants and repellents" ends abruptly after the heading Synthetic Repellents, an area of wide current interest, yet includes a treatment of phagostimulants - but only those in plants. The authors explain these things in part, but it would be better if they didn't have to.

The indexes to authors and subjects are invaluable. That to chapter titles could be much better organized; for years it has opened with the solecism ACARACIDES, while this is cross referenced to Insecticides, the only reference thereunder is spelt acaricides. More importantly, the main headings are not mutually exclusive: 'Application of Insecticides' and 'Resistance to Chemicals' should surely come under 'Insecticides and Toxicology'; 'Apiculture and Pollination' and 'Vectors of Plant Pathogens' should come under 'Agricultural Entomology', 'Population Ecology' under 'Ecology', and 'Nutrition' under 'Physiology'. While many chapter titles need duplicate entry under this system, only a few have been accorded this.

If the chapters of the first eleven volumes are tabulated under the following tentative system, they fall as indicated by the numbers in brackets, and very few titles present difficulties:-

Historical and General Entomology (1); Morphology (7); Taxonomy (20: general 12, apterygotes 0, exopterygotes 3, endopterygotes 5); Physiology (45); Ecology (47); Applied Entomology - General (45); Applied Entomology - Agricultural and Forest (25); Applied Entomology - Medical and Veterinary (22); Applied Entomology - Industrial and Domestic (2); Applied Entomology - Benefactory (9). This process reveals some imbalance in coverage, beyond that necessitated by the imbalance of the current research efforts of entomologists. Specifically, we could do with many more general articles (c.f. Remington and Remington, Volume 6); substantially more on morphology - including that revealed by electron microscopy; more taxonomy, especially of the apterygotes and exopterygotes; and more on industrial and domestic entomology - perhaps especially in the context of population ecology and new approaches to control. This same system suggested for indexing might well be used to impose some sequence on the chapters themselves; the random arrangement used hitherto, without even chapter numbers, has nothing to

recommend it to the user.

Several authors in Volume 11 find it necessary to apologise for this or that omission from their reviews, attributing this to space limitations. In so doing they squander space which might have been used to repair the omission. Most users of Annual Reviews know by now that space is limited.

Although "it is often (always?) easier to review our ignorance than to repair it" as Weaver says (page 79), we all owe an immense debt of gratitude to those who undertake the time-consuming task of writing these reviews. I particularly enjoyed Evans' delightful "Behaviour patterns of solitary wasps". Hoogstraal's "Ticks and human viral diseases" with 355 references is as complete and cosmopolitan a treatment as anybody could wish. The fine study of the Triatominae by Usinger and his allies, an original work as well as a review, is at the other end of the scale with 28 references. The 3052 references (less duplications) in the book as a whole comprise a substantial part of a year's accretion to the entomological literature. Other particularly timely and important contributions are Kroeger and Lezzi's "Gene action in insect development", Madelin's botanical approach in "Fungal parasites of insects", and perhaps the most hopeful sign for the future of applied entomology, Geier's "Management of insect pests".

The establishment of a special price for students is to be applauded.

Brian Hocking

CORRIGENDA

- P. 8, para. 5, l. 6 delete "line", substitute: "reservoir and the genital opening, replacing the term ejaculatory duct".
 P. 63, para 3, l. 6, delete "Odontotarsini", substitute "Odontoscelini".